

(What is claimed is:)

1. An encoding device connected to an input terminal to which encoded image data is input, plural output terminals to which plural encoded image data are output; and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals, said encoding device comprising:

a storage unit to store the plural parameters which are set by the parameter setting device;

a decoder to generate non-encoded image data by decoding encoded image data which is input from the input terminal;

a motion prediction processor which generates basic parameters from the plural parameters stored in the memory unit and performs motion prediction on the non-encoded image data by using the basic parameters;

a memory to store the result of the motion prediction; and

plural encoders which encode the non-encoded image data to generate compressed image data by using the plural parameters stored in the storage unit and the motion prediction result stored in the memory and output the compressed image data respectively to the plural output terminals.

2. An encoding device which generates encoded data

in plural formats, comprising:

an input terminal to which image data to be encoded is input;

plural encoders to generate plural encoded image data in different formats;

an output terminal to output the plural encoded image data generated by the encoders;

an input unit to set plural parameters which define each of the formats in which the image data is to be encoded by the encoders;

a processor to determine a set of basic parameters from the set plural parameters; and

a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders.

3. An encoding device which generates encoded data in plural formats according to claim 2 wherein said processor is incorporated in said motion prediction processor.

4. An encoding device which generates encoded data in plural formats according to claim 2, further comprising a display unit to display a setting screen through which said plural parameters are prioritized.

5. An encoding device which generates encoded data in plural formats according to claim 2 wherein said processor also determines which one of said plural parameters is to be given priority.

6. An encoding device which generates encoded data in plural formats according to claim 2, further comprising a decoder to decode encoded data which is input from said input terminal.

7. An encoding device which generates encoded data in plural formats according to claim 2 wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction.

8. An encoding device which generates encoded data in plural formats according to claim 2 wherein said plural parameters include an image size and a frame rate.

9. An encoding device which generates encoded data in plural formats according to claim 8 wherein said processor determines the largest values entered for said image size and said frame rate as basic parameter values.

10. An encoding device which generates plural encoded data, comprising:

plural encoders to generate encoded image data in respectively different formats;

an output terminal to output the plural encoded

image data generated by the encoders;

an input unit to set plural parameters which define each of the formats in which the image data is to be encoded by the encoders and to prioritize the plural parameters for each format;

a processor to determine a set of basic parameters from the set plural parameters according to the prioritization; and

a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders.

11. An encoding device which generates plural encoded data in plural formats according to claim 10 wherein said processor is incorporated in said motion prediction processor.

12. An encoding device which generates plural encoded data in plural formats according to claim 1 wherein the largest value set for each parameter is determined as the a basic parameter value by said processor.

13. An encoding device which generates plural encoded data in plural formats according to claim 10, further comprising:

a display unit through which said plural parameters

are set and said plural parameters are prioritized.

14. An encoding device which generates plural encoded data in plural formats according to claim 10, further comprising:

a decoder to decode encoded data which is input from said input terminal.

15. An encoding device which generates plural encoded data in plural formats according to claim 10 wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction.

16. An encoding method for an encoding device connected to an input terminal to which encoded image data is input, plural output terminals to which plural encoded image data are output, and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals, said encoding method comprising the steps of:

storing the plural parameters which are set by the parameter setting device;

generating non-encoded image data by decoding encoded image data which is input from the input terminal;

generating basic parameters from the stored plural parameters and performing motion prediction on the non-

encoded image data by using the basic parameters;

storing the result of the motion prediction; and

encoding the non-encoded image data to generate compressed image data by using the stored plural parameters and motion prediction result and outputting the compressed image data respectively to the plural output terminals.